

Moving Water East - Red River Valley Water Supply



Project Background



Red River, 1936

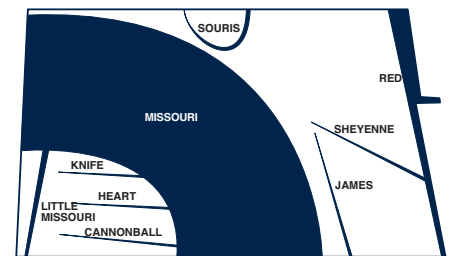
Despite recent growth in population in western North Dakota, the vast majority of the state's population still resides in eastern counties along the Red River. Logistically, this presents a problem, because the Missouri River is the state's most reliable and high quality source of drinking water, but it is nearly 200 miles west of North Dakota's most populated areas.

Although the water needs of the Red River Valley are currently being met through a combination of ground and surface water sources, future demand will exceed available supplies during dry years. And in the case of an extended drought, as was experienced in the 1930s, the eastern portion of North Dakota would not have enough water to meet the needs of its citizens.

Over the years, various projects have been proposed to supply Missouri River water to eastern North Dakota. More

recently, between 2000 and 2007, the U.S. Bureau of Reclamation in cooperation with the Garrison Diversion Conservancy District (GDCCD), developed studies and plans related to a Red River Valley Water Supply Project (RRVWSP). This effort culminated in an Environmental Impact Statement (EIS), with a preferred alternative of a Missouri River system transfer of water via pipeline from the McClusky Canal to the Sheyenne River. Although all of the studies and reports required for the federally preferred option were completed, the U.S. Secretary of the Interior never

signed a Record of Decision - a requirement for proceeding with a federal project. Despite this, the state of North Dakota will be able to take advantage of the tremendous amount of work that has been invested in this concept by the GDCCD and others, as project development moves forward.



Relative flows of North Dakota's major rivers. The Missouri River system accounts for 96% of the state's surface water resources.

A Local & State Project

In 2013, it became apparent that a Record of Decision would not be signed, and the federal RRVWSP was not going to proceed. However, because the need for a reliable source of good quality drinking water still exists in the Red River Valley, the State of North Dakota, in cooperation with the Lake Agassiz Water Authority began pursuit of a state and local water supply project, which allows for the consideration of a wider variety of project alternatives.

In February 2014, the State Water Commission issued a Request For Proposals (RFP) for a Value Engineering (VE) study, that focused on alternatives for a proposed state and local project. Special consideration was to be given to project feasibility and constructibility. The contract for the VE study was awarded to CH2M Hill, and feasibility and constructibility formed the basis for a number of evaluation criteria utilized in the VE study.

Findings of Value Engineering Study

At the June 2014 State Water Commission meeting, the final VE was presented. From those findings, three alignments were identified as being the most likely to meet the criteria for future consideration. Those options were the (Option 1) Washburn to Baldhill Creek, (Option 2) Bismarck to Lake Ashtabula, and (Option 3) Bismarck to Fargo and Grand Forks routes.

Subject to further analysis, these alternatives were chosen as being the most likely to avoid impacts to sensitive environmental resources. They also support a project configuration that will minimize negative environmental impacts, and achieve compliance with federal, state, and local requirements as a state and local project.



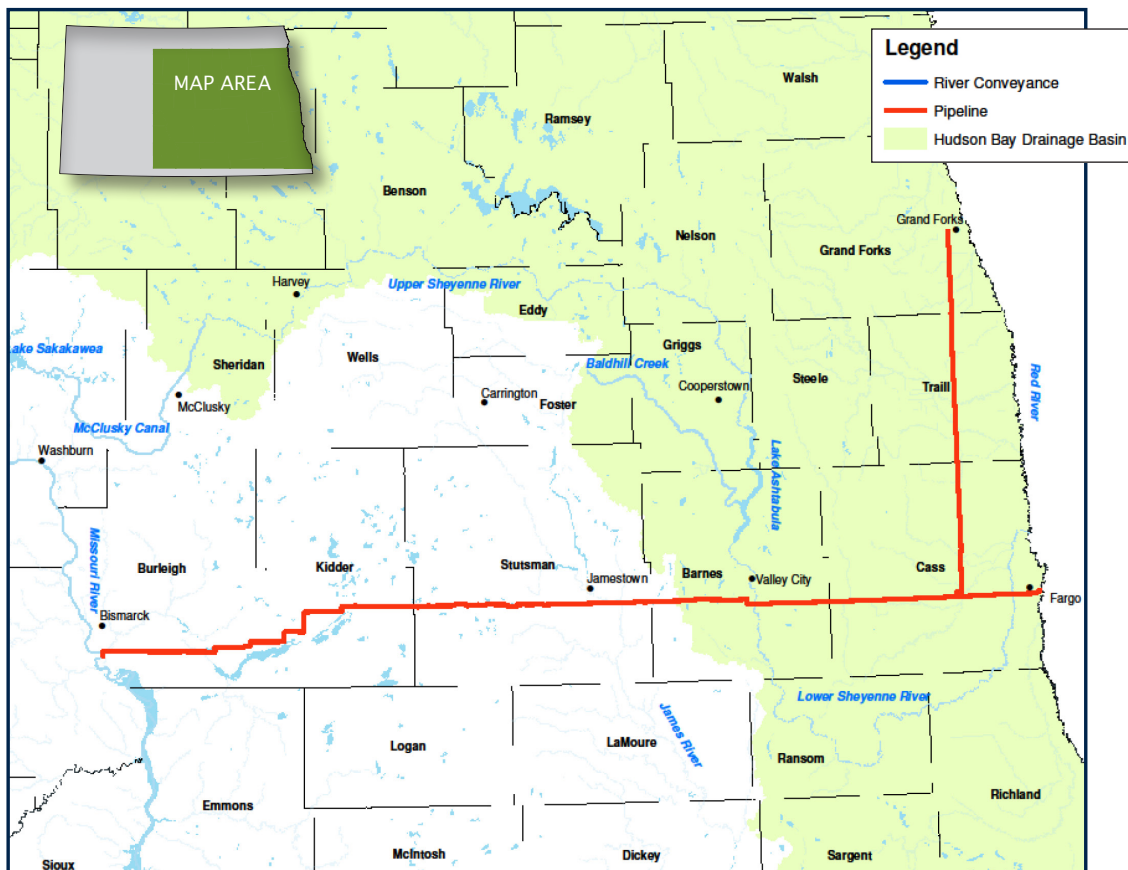
Option 1: Washburn to Baldhill Creek Route



Option 2: Bismarck to Lake Ashtabula Route



Option 3: Bismarck to Fargo & Grand Forks



Current Efforts

Based upon the VE results, the Commission voted in June 2014 to begin a feasibility study for the siting of water intakes for the three project routes, using adjacent wells lateral to the Missouri River.

The wells on the banks of the Missouri River would work by intersecting the water table of the Missouri River, allowing the project to access that water, without requiring a surface water intake to be physically located in the river itself.

As part of this study to determine the feasibility of acquiring necessary amounts of Missouri River water for any future alignments, CH2M Hill will conduct a hydrogeologic analysis. The study will include a review of existing data, geophysical exploration, soil borings, aquifer pumping tests, and conceptual design of an intake - along with estimates of probable costs. Fieldwork is expected to begin in October 2014, with the final report scheduled for completion in January 2015.



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